

Recombinant Mouse Aco1 Protein, His-tagged

Cat. No. Aco1-42M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Aco1 Protein (Lys329-Pro443) with N-His tag was expressed in E. coli.
Species	Mouse
Source	E.coli
ProteinLength	Lys329-Pro443
Description	This gene encodes a member of the aconitase/IPM isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Depending on iron levels in the cytosol, the encoded protein can function as either an aconitase enzyme or as an mRNA binding protein. When cellular iron levels are high, the encoded protein functions as an aconitase, an essential enzyme in the TCA cycle that catalyzes the conversion of citrate to isocitrate. When cellular iron levels are low, the encoded protein regulates iron uptake and utilization by binding to iron-responsive elements in the untranslated regions of mRNAs for genes involved in iron metabolism. Disruption of this gene is associated with pulmonary hypertension and polycythemia.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 14.0 kDa Accurate Molecular Mass: 15.0 kDa

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Purity	> 95%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	PBS, pH7.4, containing 0.01% SKL, 1 mM DTT, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in sterile water to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Aco1 aconitase 1 [Mus musculus (house mouse)]
Official Symbol	Aco1
Synonyms	ACO1; aconitase 1; cytoplasmic aconitate hydratase; IRE-BP 1; citrate hydro-lyase; cytoplasmic aconitase; iron regulatory protein 1; iron-responsive element-binding protein 1; Irp1; Aco-1; Irebp; AI256519
Gene ID	11428
mRNA Refseq	NM_007386
Protein Refseq	NP_031412

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